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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,479	10/15/2004	Andy C. Negoï	CH02 0006 US	4665

24738 7590 11/02/2006

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EXAMINER

HAN, YOUNGHUIE JESSICA

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/511,479	Applicant(s) NEGOI, ANDY C.	
	Examiner Y. J. Han	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a bottom plate driver" in claim 6, "a programmable logic device" in claim 9, and "Figure 1a" mentioned in the specification must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-10, 13, and 16 are rejected under 35 U.S.C. 102(a) as being anticipated by Deml et al (6,693,483).

Deml et al discloses a voltage converter for converting an input voltage to an output voltage comprising a plurality of cascaded voltage multipliers (Pn) and control circuitry (20) for

controlling the plurality of voltage multipliers, characterized in that the control circuitry comprises a switching means (Sn/ SEn) for activating at least one first voltage multiplier selected from the plurality of voltage multipliers and for switching at least one further voltage multiplier located in the cascade before the first voltage multiplier in the same way as the first voltage multiplier; characterized in that switching comprises activating and/or disabling; characterized in that the first voltage multiplier is one of a number of activated voltage multipliers also located in the cascade at a second or higher order stage at most, in particular located in a sequence of stages at the end of the cascade; characterized in that the further voltage multiplier is one of a number of further voltage multipliers located at the first or higher order stages of the cascade, in particular located in a sequence of stages at the beginning of the cascade; characterized in that at least one of the plurality of voltage multipliers is formed by a charge pump (LP); characterized in that the charge pump comprises a charge storage element (CS1...CS4), in particular a capacitor, a switch (S1...S4/SE1...S4), in particular a MOSFET switch, and a driver, in particular a bottom plate driver (AE); characterized in that one or more of the voltage multipliers have at least one clock input (21); characterized in that the control circuitry is connected to the clock input for supplying a clock signal (F1, F2) to the voltage multiplier for controlling the voltage multiplier; characterized in that the switching means is a programmable logic device (20); characterized by a programming means for operating the switching means as a function of the output and/or the input voltage (RE); characterized in that the programming means comprises a software code section capable of selecting a number of one or more further voltage multipliers from the disabled voltage multipliers for switching the further voltage multipliers in the same way as the activated first voltage multiplier. See Figure 2.

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5. Claims 1, 2, and 5-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Negoï (6,801,077).

Negoï et al discloses a programmable charge pump including a voltage converter for converting an input voltage to an output voltage comprising a plurality of cascaded voltage multipliers (S) and control circuitry for controlling the plurality of voltage multipliers, characterized in that the control circuitry comprises a switching means for activating at least one first voltage multiplier (one of  $S_n$ ) selected from the plurality of voltage multipliers and for switching at least one further voltage multiplier (another of  $S_n$ ) located in the cascade before the first voltage multiplier in the same way as the first voltage multiplier; characterized in that switching comprises activating and/or disabling; characterized in that at least one of the plurality of voltage multipliers is formed by a charge pump (CP); characterized in that the charge pump comprises a charge storage element ( $CS_n$ ), in particular a capacitor, a switch ( $SW_n$ ), in particular a MOSFET switch, and a driver, in particular a bottom plate driver (see Figure 3); characterized in that one or more of the voltage multipliers have at least one clock input (inherent, col. 2, lines 6-11) for supplying a clock signal to the voltage multiplier for controlling the voltage multiplier; characterized by a programming means for operating the switching means as a function of the output and/or the input voltage (IN/OUT); characterized in that the programming means comprises a software code section capable of activating a number of one or more first voltage multipliers in case of insufficient input voltage; characterized in that the programming means comprises a software code section for disabling a number of voltage multipliers selected from the plurality of voltage multipliers in case of sufficient input voltage; characterized in that the programming means comprises a software code section capable of selecting a number of one or

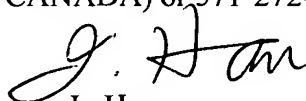
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more further voltage multipliers from the disabled voltage multipliers for switching the further voltage multipliers in the same way as the activated first voltage multiplier; in particular a driving circuit (DD) for a display device (DU); working under a current load of 0.1 mA to 10 mA (LCD modules typically work within this parameter).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



J. Han  
Primary Examiner  
Art Unit 2838